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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/511,714

10/15/2004

Bong Kil Han

101371-36

6349

27387 7590 03/17/2009
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EXAMINER

HERRING, BRENT W

ART UNIT

PAPER NUMBER

3633

MAIL DATE

DELIVERY MODE

03/17/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/511,714	Applicant(s) HAN, BONG KIL	
	Examiner BRENT W. HERRING	Art Unit 3633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 January 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 October 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the reinforcement bar in a deck plate or slab type mold installed on the steel-frame beam, and mounting of a reinforcing bar on a wall of the core must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sheu et al., U.S. Patent 6,266,938 in view of Petter, U.S. Patent 2,345,500.

Regarding claim 1:

Sheu et al. discloses a method capable of being used *for constructing a high rise building having a core and a residence space around the core*, the method comprising the steps of:

(b) connecting a girder (1, see Figs. 2-4) to a steel-frame pillar (see Fig. 2), the girder includes an anchor-connecting member (collaboration of parts 10, 120, 121, see Fig. 6 form an anchor-connecting member) to which a steel-frame beam (4, 20, both constitute steel-frame beams) is connected, a portion of the anchor-connecting member (10, 120, 121) being buried in a core wall (see Fig. 6, col. 4, lines 10-14);

(c) assembling the steel-frame beam (20) on the anchor-connecting member (10, 120, 121, see Figs. 3, 4, 6 8);

(d) arranging a reinforcing bar (51, see Fig. 2) in a deck plate (7, see Figs. 2 and 6) or a slab type mold installed on the steel-frame beam (20, see Fig. 6), and mounting a reinforcing bar on a wall of the core (6, I, see Fig. 6); and

(e) applying concrete for a slab and concrete for the wall of the core simultaneously or in this order (see Fig. 6, note that the concrete is applied for the wall and the floor simultaneously).

Sheu et al. does not expressly disclose the step of (a) installing the steel-frame pillar on a shaft portion of a core.

Petter discloses installing a pillar (13, see Fig. 3) on the shaft portion of a concrete footing/ foundation core (15).

Petter and Sheu et al. are analogous art because they are from the same field of erecting static load-bearing structures.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to install the steel-frame pillars of Sheu et al. on the shaft portion of a core like that taught of Petter.

The motivation to combine would have been to provide a base support to the structure of Sheu (column 1, lines 5-8 of Petter).

Note that it has been held that a recitation with respect to the manner in which a claimed method is intended to be employed does not differentiate the claimed method from a prior art method satisfying the claimed method steps.

The claim limitations are met insofar as the method of the prior art is capable of being used as intended by the functional language of the claim.

Regarding claim 2:

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Sheu in view of Petter teaches the method of claim 1, and Sheu further discloses wherein plural sub-connecting members (3, see Figs. 2, 3, 6 and 7) capable of use *for supporting the deck plate or the slab type mold* are installed on the girder (1, see Fig. 3) installed between the steel-frame pillars (four vertically positioned "I" beams, see Fig. 2), the sub-connecting members (3) including a connecting member (121, see Fig. 6 and 8) coupled to the girder (1) and a supporting member (3 having hole 30, see Fig. 7) coupled to one end of the connecting member (121, see Fig. 6).

Regarding claim 3:

Sheu in view of Petter teaches the method of claim 1 wherein the anchor-connecting member (10, 120, 121) comprises a connecting member (10 in contact with 1, see Figs. 3, 6) connected to the girder by welding or bolts (1, column 2, lines 30-33), an anchor plate (121) connected to the connecting member (10) by welding or bolts (see Figs. 3, 6, 8), a gusset plate (120) attached to the anchor plate (121), and a stud or shear connector (6) extended from the anchor plate (121) to the concrete wall and buried in the concrete (see Fig. 6).

Sheu does not teach wherein the gusset plate is attached to the anchor plate by welding.

Examiner takes official notice that it is old and well known to use welding for attachment of metal parts. The substitution of welds for bolts is nothing more than the substitution of one fastening means for another equivalent known fastening means that would fail to yield any unpredictable results to one of

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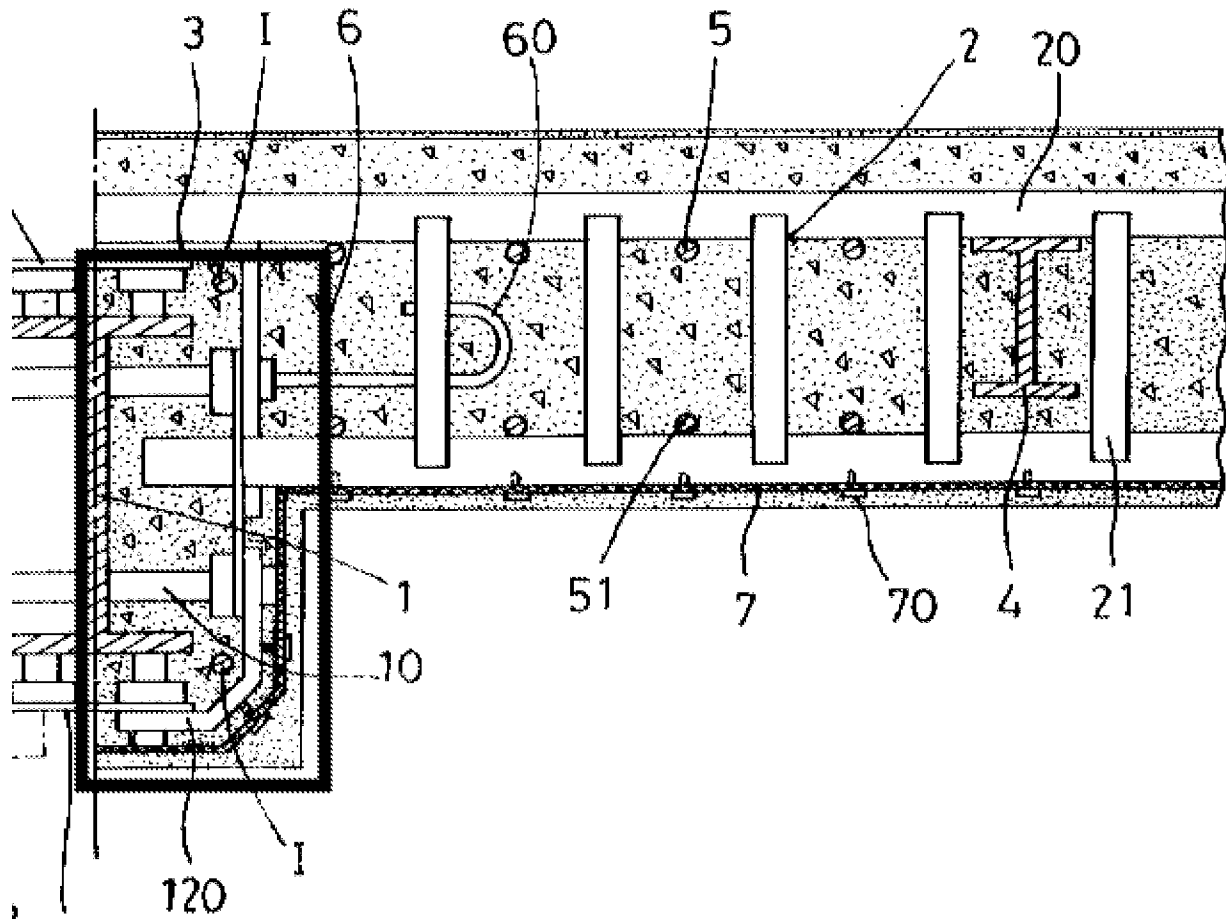
ordinary skill in the art at the time of the invention. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have replaced bolts in the prior art of Sheu with welding to connect the gusset plate and anchor plate.

Regarding claim 4:

Sheu teaches the method of claim 1 wherein the step (c) further comprises the steps of forming a slot hole (100) on the anchor-connecting member (10, 120, 121, see Figs. 3, 6, 8) and coupling a high tensioned bolt (N) in the slot hole (100) to be assembled on the steel-frame beam (20).

Response to Arguments

4. Applicant's arguments filed 1/15/2009 have been fully considered but they are not persuasive.
5. Regarding applicant's argument that neither Sheu nor Petter teaches a core wall, examiner disagrees. Applicant is reminded that claims are provided their broadest reasonable interpretation. In the instant case, Sheu discloses a core wall extending from and adjacent to the slab of Sheu as shown in Fig. 6. In the figure below, the core wall of Sheu is outlined.



Although the wall of Sheu is an element located around the same level as the column and beams of Sheu, this does not obviate the fact that the wall is located in a central position with regards to the structure and that the wall outlines the core. As taught by Sheu, the wall constitutes a “core wall”.

6. Applicant further alleges (1) that Sheu and Petter are non-analogous, (2) that it would not have been obvious to one of ordinary skill in the art to install the steel-frame pillars of Sheu on the shaft portion of the core of Petter, (3) that providing a base as taught by Petter to support the structure of Sheu is improper motivation.

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7. In response to applicant's argument that Sheu and Petter are nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. In this case, Sheu and Petter are both in the field of structural framework for supporting a horizontal load-bearing structure.

8. In response to applicant's argument that there is no suggestion or motivation to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. In this case, it is within the knowledge generally available to one of ordinary skill in the art that anchoring a support in a base of concrete increases stability in a structure. This is implied by the structural relationship between the uprights and the concrete core base of Petter.

9. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRENT W. HERRING whose telephone number is (571)270-3661. The examiner can normally be reached on Monday-Thursday, 8:00AM-5:30PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian E. Glessner can be reached on (571)272-6847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BRENT W HERRING/
Examiner, Art Unit 3633

/Robert J Canfield/
Supervisory Patent Examiner, Art Unit 3635